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			EXAMINER	
			ROANE, AARON F	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/648,590  
Filing Date: August 25, 2003  
Appellant(s): PURCELL ET AL.

**MAILED  
SEP 13 2007  
GROUP 3700**

\_\_\_\_\_  
Andrew Peret (Reg. No. 41,246)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/7/2007 appealing from the Office action mailed 10/19/2006.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The date May 19, 2004 is wrong. Applicant's statement should read

"No amendments have been made subsequent to the Final Office Action dated October 19, 2006."

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**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,462,224	Dunshee et al.	7-1984
6,099,555	Sabin	8-2000
5,486,206	Avery	1-1996

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 10-12, 14-16, 29-31, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunshee et al. (USPN 4,462,224) in view of Sabin (USPN 6,099,555) in view of Avery (USPN 5,486,206).

Regarding claims 6 and 12, Dunshee et al. disclose a hot/cold pack comprising: an enclosure (10); a solute within said enclosure (21), a liquid within said enclosure (19); a membrane segregating said liquid from said solute (24 of the group of 24 and 26), wherein rupturing said membrane mixes said liquid with said solute to produce an endothermic solution within said enclosure; and an absorbent core (23, a gelling agent) within said enclosure, said membrane (26 of the group of 24 and 26) segregating said absorbent core from said solute, see col. 2, lines 26-58, col. 3, line 18 through col. 5, line 65 and figures 1-7, particularly figures 1-3. Dunshee et al. disclose that the device has two uses: 1) first the contents of 18 and 20 are mixed, i.e. the liquid (19) and the solute (21), thus producing an endothermic or exothermic reaction depending on the types of liquids and solutes used, 2) then after the mixture of liquid/solvent (19) and solute (21) has returned to ambient temperature, membrane 26 is ruptured in order to add to the mixture of (19) and (21) the gelling agent (23) to provide a reusable gel pack, see col. 5, lines 41-60. Dunshee et al. fail to disclose that the endothermic solution is spread through the enclosure by the absorbent core and that the absorbent core is formed at least

partially of a fibrous material. Sabin discloses a cold pack (1) comprising: an enclosure (entire outer covering consisting of 2 and 2a), a powdered solute (24) within said enclosure; a liquid (28) within said enclosure, a membrane (portion of 2 and 2a located at 7) segregating said liquid from said powdered solute, wherein rupturing said membrane mixes said liquid with said powdered solute to produce an endothermic solution within said enclosure, and an absorbent core (26 of 8) within said enclosure, said absorbent core retaining said endothermic solution to spread said endothermic solution throughout said enclosure. Sabin further discloses that the absorbent core (26 of 8) is an absorbent layer. Finally, Sabin discloses solute is interspersed throughout said absorbent layer before said membrane is ruptured, see col. 1-11, particularly col. 10, lines 2-24 and figures 2 and 3. Additionally, it should be noted that the mixture of 24, 26 and 28 forms a gel, since 26 is a gelling agent. Additionally, Sabin teaches that the liquid, solute and gelling agent can all be simultaneously mixed together such that the mixture is an endothermic gel. Avery discloses a therapeutic thermal device comprising a gel (20) and teaches providing the gel with a fibrous material (e.g., 66) in order to increase gel viscosity and heat capacity, see abstract, col. 1-6 and figures 1-5. Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the invention of Dunshee et al., as taught by Sabin, to mix the liquid (solvent), solute and gelling agent together as an alternate cooling modality and in order to provide a relatively conformable cooling device, and as further taught by Avery, to provide the gel with a fibrous material in order to increase gel viscosity and heat capacity.

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Regarding claims 7, 10, 11, 14-16 and 31, Dunshee et al. in view of Sabin in further view of Avery disclose the claimed invention.

Regarding claim 29, 30 and 36, Dunshee et al. disclose the claimed invention, see col. 5, lines 4 and 19.

Regarding claim 34, Dunshee et al. in view of Sabin in further view of Avery disclose the claimed invention, see Avery, col. 4, lines 22-39.

#### **(10) Response to Argument**

##### **Section A:**

Regarding the comments of section A) (see page 9 paragraphs 1 and 2), the examiner has shown and will show that the prior art not only teach or suggest all the claim elements and make obvious the claimed invention as a whole, but the motivation to combine comes from the references themselves.

##### **Section B:**

First, Applicant states that cancelled claim 33 appears in the rejection while pending claim 34, does not appear to be rejected, see first paragraph of section B on page 9. It should be noted that claim 33 was inadvertently noted in the rejection. However, although claim 34 does not appear in the rejection heading, claim 34 is specifically rejected on page 4 of the Final

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Rejection. Furthermore, claim 34 recites “the fibers are pulp fibers,” which is clearly met by Avery, see col. 4, lines 22-39.

Applicant asserts “that a *prima facie* case of obviousness has not been established against claims 6, 7, 10-12, 15-16, 29-31, 34 and 36” due to three separate issues:

(i) Dunshee, Sabin and Avery do not disclose either singularly, or in combination, the invention as claimed in claims 6, 7, 10-12, 15-16, 29-31, 34 and 36;

(ii) the Examiner has not provided an adequate motivation to combine Dunshee, Sabin and Avery;

(iii) Avery teaches away from any combination with Sabin and Dunshee.

Before addressing and rebutting Applicants three prong argument, the examiner wishes to point out some things regarding Applicants’ summarization of the three patents 1) Dunshee et al., 2) Sabin and 3) Avery.

Applicant characterizes the seams (24 and 26) of Dunshee et al. as “single use,” see page 10, first full paragraph. The examiner does not dispute that the seams are single use in that they are rupturable seams. However, this term “single use” certainly only applies to the seams and not the entire device (10) of Dunshee et al. since Dunshee et al. discloses the reusable nature of the device, see col. 5, lines 41-60. Again, it should be noted Dunshee et al. provides 1) what could be characterized as a “single use” or “single occurrence” endothermic device and 2) a



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reusable thermal device in that A) first the contents of 18 and 20 are mixed, i.e. the liquid (19) and the solute (21), thus producing an endothermic or exothermic reaction depending on the types of liquids and solutes used, B) then after the mixture of liquid/solvent (19) and solute (21) has returned to ambient temperature, membrane 26 is ruptured in order to add to the mixture of (19) and (21) the gelling agent (23) to provide a reusable gel pack.

Applicant next asserts (page 10, second full paragraph) that Dunshee et al. do not disclose

*(i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12.*

The examiner does not argue this point, has admitted on the record that Dunshee et al. do not even recite a fibrous layer. The fibrous layer, where layer is interpreted very broadly, is provided by Avery.

Next, and most importantly, Applicant asserts (see page 10, second full paragraph, lines 9-11) Dunshee et al. do not "disclose an absorbent core that retains the endothermic solution as indicated by the Examiner because nothing in the enclosure retains the cooling gel to spread the cooling gel throughout the enclosure." The examiner completely disagrees and has clearly pointed out that the absorbent core disclosed by Dunshee et al. is (23), the gelling agent. This

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particular absorbent core is a gelling agent that absorbs the solution when seams 24 and 26 are ruptured. It should be pointed out that although Applicant may wish to distinguish the presently claimed absorbent core of the presently claimed invention over that of a liquid/solution absorbing gelling/gel agent (disclosed by both Dunshee et al. and Sabin), there is no structure other than the fibrous material (provided by Avery) that distinguishes over the prior art in structure or function. Additionally, Applicant has attempted in the past to add further limiting structure in the "sheet-like" recitation in the response filed 1/27/2006 that would overcome the interpretation that a collection/layer of gelling agent powder/particulate meets the recited absorbent layer. This "sheet-like" recitation was rejected under a 112, 1<sup>st</sup> paragraph and subsequently removed by Applicant (see response filed 4/27/2006). Presently, the examiner contends there is nothing in Applicants' disclosure that precludes the examiner from interpreting the gelling agent ((23) of Dunshee et al. and (26) of Sabin) as an absorbent layer.

Applicant next characterizes Sabin and presents the same arguments against Sabin as were leveled against Dunshee et al. and the examiner refutes those arguments the same way the arguments against Dunshee et al. were handled.

The one distinction should be that Sabin teaches that the endothermic solvent, solute and gelling agent can be combined initially, whereas Dunshee et al. only combine the gelling agent after the endothermic reaction has ended. Additionally, Sabin is added to address the functional language "to spread said endothermic solution throughout the interior of said enclosure."

Next, Applicant summarizes the Avery disclosure and asserts (see page 11, second full paragraph) that the device disclosed is "reusable." Applicant then admits on the record that

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“[t]he gel in Avery includes a fibrous, flaked or shredded material (see, col. 2, lines 1-2 of Avery).”

So the prior art combination discloses a thermal device having an enclosure, an absorbent core (the gelling agent) that absorbs a liquid to produce an endothermic reaction (Dunshee et al. and Sabin), wherein the gel/gelling agent also comprises fibers (Avery).

Now we will address the three pronged argument against the prior art combination.

**Argument I:**

Here, (first paragraph on page 12) Applicant basically asserts that the prior art collectively do not disclose, imply, suggest and/or teach

*(i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12.*

Again it is the gel/gelling agent (of Dunshee et al. and Sabin) along with the fibrous material (from Avery) that meet this supposed missing feature. This point has been made clear in all past communications (written and telephonic) with Applicant.

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**Argument II:**

Applicant next asserts that there is no motivation or suggestion to combine Dunshee et al., Sabin and Avery and “that the statements are mere conclusory statements of subjective belief,” see page 12, 2<sup>nd</sup> paragraph of section II, lines 2 and 3. Sabin is added to Dunshee et al. to teach the alternate modality of mixing the solvent, endothermic solute and gelling agent initially and Avery is added to teach the use of fibers in the gel in order to increase viscosity and improve heat capacity. The examiner has attempted in the past and present, to point out where in the secondary teaching references, what the motivation is and exactly which column and line the particular motivation lies in.

**Argument III:**

Applicant asserts (last paragraph on page 13) “Avery teaches away from any combination with Dunshee and/or Sabin because Avery teaches a “reusable” thermal pack (see Avery at col. 1, lines 53 and 56). In contrast, Dunshee and Sabin relate to a one-time use coldpack where the liquid and the cold particulate material are initially segregated and then mixed together to start the endothermic reaction.” This is wrong as the examiner pointed out above in response to the summarization of the three patents. Avery presents what could be referred to as a “reusable” thermal pack while Sabin discloses what could be referred to as a “single use” endothermic device. However, Dunshee et al. disclose a hybrid device in that it is “single use” in its endothermic nature but “reusable” in its gel pack modality as noted in col. 5, lines 41-60. Dunshee et al. bridges the gap between the “single use” and “reusable” nature of Sabin and Avery, respectively. All three patents are directed to cold delivery packs/devices and all three

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make use of gels and/or gelling agents. The examiner fails to find any merit in the argument that Avery teaches away from the disclosures of Dunshee et al. and Sabin.

Finally, the examiner has commented on Applicant's characterization of the prior art, made clarifications were needed and rebutted each of the three arguments against the combination of the prior art of record. The rejections are maintained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Aaron Roane

August 31, 2007

Conferees:

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